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Commission Action:	

STAFF REPORT:
REGULAR CALENDAR

APPLICATION NO.: **1-00-006**

APPLICANT: **Crescent City Harbor District**

AGENT: Richard W. Parsons – RWP Dredging Management

PROJECT LOCATION: (1) The northeast inner-harbor shoreline of the Crescent City Harbor and (2) the adjoining offshore water area between the Whaler Rock Breakwater and South Beach, Del Norte County.

PROJECT DESCRIPTION: Disposal of harbor maintenance dredging spoils materials from the inner-channel, berths, and slips of Crescent City Harbor, totaling less than 100,000 cubic yards annually, for a 10-year period. The materials that have been determined to be suitable for indirect beach nourishment would be placed in an aquatic disposal site located in the nearshore area between Whaler Rock and South Beach. Other dredged material would be placed in an upland disposal basin (APN 117-020-16).

AGENCY APPROVALS:	1)	(Pending) U.S. Army Corps of Engineers Rivers and Harbors Act §10 Dredging and Disposal General Permit, Number 24221N;
	2)	*Waste Discharge Requirements for Crescent City Harbor District Maintenance Dredging District Berthing Areas and Federal Channel*, California Regional Water Quality Control Board – North Coast Region, issued August 25, 2000; and
	3)	*Dredging and Disposal Lease No. PRC 5202.9*, State Lands Commission, issued June 27, 2000.
SUBSTANTIVE FILE: DOCUMENTS	1)	Del Norte County Certified LCP;
	2)	Federal Consistency Determinations Nos. CD-80-98 & 81-98;
	3)	*Sampling and Analysis, Crescent City Harbor District, Crescent City, California*, AET Applied Environmental Technologies, November 9, 1999; and
	4)	*Final Environmental Assessment for Fiscal Year (FY) 1998 Operations and Maintenance Dredging of the Crescent City Harbor Federal Channels, Del Norte County, California*, U.S. Army Corps of Engineers, August, 1998.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission approve with conditions the dredge material disposal project. The Crescent City Harbor District ("District") proposes to dredge inner channel, berthing and boat launch areas in Crescent City Harbor, on an as-needed basis, with disposal at an existing upland disposal facility and at an aquatic site in the surf zone of dredged material suitable for indirect beach nourishment. The project is necessary to dispose of materials that would be dredged from the harbor in order to maintain previously dredged depths in existing navigational channels, turning basins, berthing areas and boat launching ramps. The project is essential for recreational boating and commercial fishing operations, as well as other coastal dependent and coastal related operations that make use of the Crescent City Harbor.

While the proposed dredge material disposal would facilitate the continuance of high priority uses under the Coastal Act, the project nevertheless raises Coastal Act issues pertaining to the protection of marine resources and environmentally sensitive habitats,

maintenance of water quality, protection of visual resources, and minimizing restrictions to public access and recreation.

Generally, the greatest potential for environmental effects from dredge disposal operations lies in the benthic environment. In this case, the subject benthic environment includes ocean bottom and water column flora and fauna located just outside of the harbor. Due to the presence of high-energy wave action, this environment is dynamic and contains ever-changing habitats for a variety of benthic species. Although the proposal to dispose of dredge material into the surf zone and nearshore environment contains the potential to impact marine resources, the project as designed and as proposed to be conditioned by staff would provide mitigation measures to minimize adverse environmental effects to such resources. Impacts to coastal resources would also be temporary in nature and re-colonization by marine organisms would occur over time. In addition, because the project as conditioned would only allow for the aquatic disposal of sediments that are determined to be suitable in terms of their physical or chemical properties for purposes of beach replenishment, long-term adverse impacts to marine resources and environmentally sensitive species and habitats would be avoided. Those dredge materials determined not to be suitable for aquatic disposal would be placed in an existing upland sediment pond facility designed specifically for dredge spoils disposal.

Water quality impacts resulting from aquatic dredging disposal operations can occur through changes in a number of variables, including dissolved oxygen, pH, salinity, total suspended solids, and turbidity. Though changes to these water quality variables would result from the proposed dredge disposal operation, pre-disposal ambient water quality conditions would recur shortly after each dredge episode. Thus, impacts to these water quality variables are expected to be short-term and minor in magnitude and scope. In addition, as conditioned, the project would limit aquatic disposal of dredge material to those spoils having particular biological, chemical, and physical qualities determined as suitable through a process of sediment sample analysis. Further, water quality monitoring of both the surf zone disposal area and de-watering outfall discharges from the upland site would be monitored for compliance with water quality standards established by the Regional Water Quality Control Board. Given all these requirements, the project would not adversely impact water quality.

The project would affect public views to and along the ocean due to the presence of the floating dredge and associated floating sections of pipe used in disposing the dredged materials. However, this impact would not result in a significant impairment of scenic resources as the visual presence of the dredge is not overly obtrusive and would blend in with other vessels already visible in the harbor area.

Finally, adverse impacts to public access are possible, but would be of limited duration. The flexible above-ground pipeline used to transport suitable dredge spoils to designated upland disposal and indirect beach replenishment sites create, from time to time as they are moved about, a modest impediment to pedestrian travel in portions of the harbor area and to or along the adjacent inner harbor beach. The District's pipeline is 12 inches in

diameter, and during dredging operations may need to be traversed by persons walking on the breakwater causeway or inner-harbor beach. However, the conditions recommended by staff would require the applicant to manage the placement of these pipelines so that they do not form an unintentional continuous barrier, and to conduct dredge disposal activities during times and events which do not involve significant coastal use of the harbor area.

Overall, the harbor dredging program is necessary to protect Coastal Act priority uses. In addition, staff notes that the proposed aquatic disposal would return material suitable for beach replenishment to the littoral system to benefit the overall long-term public use of harbor and South Beach areas, consistent with Section 30233(b) of the Coastal Act. Therefore, staff recommends that the Commission find that the project as conditioned is consistent with the Chapter 3 policies of the Coastal Act and approve the permit.

STAFF NOTES:

1. Permit Exemptions for Dredging.

Pursuant to Coastal Act Sections 30610(c), no coastal permit is required for "maintenance dredging of existing navigation channels or moving dredged material from those channels to a disposal area outside the coastal zone, pursuant to a permit from the United States Army Corps of Engineers." Further, under Coastal Act Section 30610(d), as detailed in Section 13252(a)(2)(A)of the Commission's administrative regulations, any method of routine maintenance dredging that involves the dredging of less than 100,000 cubic yards within a twelve month period similarly does not require a coastal development permit. As the applicant proposes dredging of a portion of an existing navigation channel that would be subject to a permit issued by the Corps of Engineers and as the proposed maintenance dredging of other non-navigational channel areas within the harbor would involve less than 100,000 cubic yards in a twelve month period, no coastal development permit is required for the dredging portions of the project.

Pursuant to Coastal Act Section 30106 and Section 13252(a)(2)(B) of the Commission's administrative regulations, however, a coastal permit is required for disposal of dredge material onto areas within the coastal zone. The applicant has requested to dispose of suitable dredged materials into the nearshore area adjacent to the Harbor's Whaler Island Breakwater. Dredged materials deemed unsuitable for aquatic disposal are proposed to be disposed of in an upland sedimentation pond. Both of these areas are located within the coastal zone. Therefore, the applicant has applied for a permit to authorize disposal at both the aquatic and upland disposal sites.

2. Jurisdiction and Standard of Review.

The proposed dredge spoils disposal project sites are located in existing tidelands or former tidelands shown on State Lands Commission maps as being subject to the public trust. These lands are within the Coastal Commission's area of original or retained jurisdiction. Therefore, the standard of review is the applicable Chapter 3 policies of the Coastal Act.

3. Other Required Permits.

As stated above, the actual dredging activity is primarily regulated by the U.S. Army Corps of Engineers. In addition, the California Regional Water Quality Control Board regulates the discharges of materials into waters subject to the federal and state Clean Water Acts. The District has applied to the Corps of Engineers for a general permit to authorize the proposed dredging and disposal activities that is currently being reviewed by that agency. In addition, the Regional Water Quality Control Board has issued an Order No. R-1-2000-59 setting waste discharge requirements for both the dredging and dredge spoils disposal portions of the project. Finally, the State Lands Commission has issued a lease for the dredging project.

I. STAFF RECOMMENDATION, MOTION AND RESOLUTION OF APPROVAL.

Staff recommends that the Commission make the following motion and adopt the following resolution to APPROVE the permit application with special conditions.

MOTION:

I move that the Commission approve Coastal Development Permit No. 1-00-006 pursuant to the staff recommendation.

Staff recommends a YES vote. Passage of this motion will result in adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION OF APPROVAL WITH CONDITIONS

The Commission hereby approves Coastal development Permit No. 1-00-006, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is located between the nearest public road and the sea and is in conformity with the public access and public recreation policies of the Coastal Act, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the

provisions of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

II. STANDARD CONDITIONS: See attached.

III. SPECIAL CONDITIONS:

1. Conformance with USACOE Requirements

PRIOR TO COMMENCEMENT OF OPERATIONS AUTHORIZED UNDER THIS PERMIT, the permittee shall submit to the Executive Director for review: (1) a copy of the U.S. Army Corps of Engineers Permit No. 24221N, Letter of Permission, or evidence that no other USACOE permit is necessary; and (2) concurrence by the U.S. Environmental Protection Agency regarding the suitability of materials from Dredge Area 3 for aquatic disposal of dredge spoils. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers or the U.S. Environmental Protection Agency. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

2 Protection of Harbor Seal Pupping Grounds

During the period spanning March 1 to June 15, no disposal of dredge spoils into the Uplands Deposition Area may occur if harbor seals (Phoca vitulina) are found within 500 feet of the disposal facility. Once the seals have left the vicinity of the sedimentation pond beach area, and are not found within 500 feet of the disposal facility, dredge spoils operations may resume.

3 Scope and Term of Permit Approval

A. The development authorized by this coastal development permit is limited as follows:

1) Aquatic disposal at the Whaler Island Beach and Nearshore Deposition Area is authorized for only those dredged materials originating from Dredge Area 3.

2) No more than 800 cubic yards of suitable dredge material may be deposited for aquatic indirect beach nourishment during any 24-hour period.

3) All other dredged materials originating from Dredge Areas 2, 4 and 5 shall be disposed of at the Crescent City Harbor District's Upland Deposition Area, subject to all applicable federal, state and local regulations.

4) Coastal Development Permit No. 1-00-006 does not authorize the disposal of any dredge spoils, either by aquatic or upland disposal, other than those materials authorized for maintenance dredging under USACOE Permit No. 24221N.

5) The development authorized by this permit shall expire 5 years from the date of Commission approval. Continued dredged material disposal after this date shall require a new coastal development permit.

4. Timing of Aquatic Dredge Spoils Disposal Operations

To avoid adverse impacts on fish and wildlife habitat and public access and recreational use, aquatic dredge disposal operations at the Whaler Island Beach and Nearshore Deposition Area shall not occur between January 1 through July 31, or during the following significant coastal access or recreational related local events:

(A) Crescent City Triathalon (late August)
(B) Labor Day (early September);
(C) Coastal Clean-up Day (mid September);
(D) Noll Longboard Classic (late September); and
(E) Sea Cruise (early October).

5. Beach Nourishment Turbidity Control Plan

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and written approval of the Executive Director, a plan to limit turbidity increases at the Whaler Island Beach and Nearshore Deposition Area to no more than 20% above background. The plan shall be prepared by a qualified professional.

1. The plan shall demonstrate that at least the following turbidity control measures will be used:

a. Restricted use of the coarser beach nourishment materials originating from Dredge Area 3;

b. Avoidance of periods of high surf/high tides;
c. Direct or indirect turbidity monitoring (e.g., secchi disk or photogrammetric occlusion measurements, or video documentation from atop Whaler Island); and

d. Justification for why the plan will limit turbidity to no more than 20% above background levels.

2. The plan shall include, at a minimum, the following components:

a. A written description of each turbidity control measure;

b. Maps depicting the locations where structural turbidity control measures (if any) will be installed and direct/indirect monitoring conducted, and

c. Engineered drawings depicting the design (e.g., dimensions, etc.) of structural turbidity control measures (if any), and technical descriptions of direct/indirect monitoring methods.

B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. Annual Report

By March 1 of each year, the applicant shall submit to the Executive Director an annual status report as to maintenance dredging and spoils disposal activity that occurred during the preceding calendar year. The report shall provide the following information:

- The dates, times, amounts, the Dredge Area sources, and Deposition Area locations of the materials that were dredged and disposed; and

- Copies of all related water quality discharge monitoring and quarterly reports, as required by Special Condition No. 5(A)(1)(c), the North Coast Regional Water Quality Control Board and the California State Lands Commission.

7. Public Access

A. Deposition of dredge spoils materials, either at aquatic or upland disposal areas, shall not result in closure (either fully or partially), or a reduction in hours of operation of, the following beach areas and recreational facilities: Beach Front Park, Shoreline Campground Accessway, Crescent City Harbor, Whaler Island Breakwater Causeway, South Beach, or Crescent Beach during the period of May 1 through December 31.

B. Permittee shall ensure that dredge spoils disposal operations are conducted as to minimize, to the greatest extent possible, any interference with public access to and along the Crescent City Harbor Beach and the Whaler Island Breakwater and Causeway. In particular, the permittee shall work with the dredge operator to implement the following measures for those pipeline segments occupying the beach or breakwater, including but not limited to:

1) Scheduling and coordinating disposal operation times and locations so as not to interfere with high priority coastal-dependent uses (i.e., access to the U.S. Coast Guard dock, commercial fishing related traffic) and significant coastal access and recreation events including but not limited to those identified in Special Condition No. 5.A.1), above (e.g., fishing "derbies," surfing contests, Christmas/New Years bird counts, ornithological festivals, beach clean-up days, sailing flotillas, etc.);
2) Uncoupling segments of the suction pump slurry pipeline when not in use to allow unimpaired pedestrian or vehicular movement, or building small-scale sand ramps over the pipeline; and
3) When not in use, proper storage of dredge disposal pipeline in a location where interference with public access would not result.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. PROJECT BACKGROUND

Based upon data collected for the "General Investigation Study" (U.S. Army Corps of Engineers, July, 1981), approximately 80,000 to 100,000 cubic yards of sediment enters the Crescent City Harbor annually from riverine and longshore current transported sources. Since the harbor acts as a basin in which suspended sediments settle out when the dynamic forces of tides and currents are reduced behind its protective breakwaters and jetties, sand accretion is the most serious maintenance issue facing the Crescent City Harbor District ("District"). But for the harbor, much of these materials would continue in littoral drift transport and be deposited along South Beach, a stable sandy beach adjacent to and south of the harbor [see Exhibit Nos. 1 and 2].

On July 13, 1963, by Senate Bill No. 1383, the State of California transferred all rights, title, and interest to portions of the submerged and tidelands within Crescent City Harbor and surrounding ocean waters to the District. In granting these ownership rights, the State Lands Commission (SLC) has retained authority over these former sovereign lands through both exempted and reserved rights to all deposits of minerals, and its public trust responsibilities under the state Constitution [see Exhibit No. 6].

The District has been dredging the inner harbor, berths and slips for the last 30 years. The District's last eleven years of dredge spoils disposal activities were conducted under Coastal Development Permit No. 1-88-115, issued for a ten-year period commencing on August 8, 1988. CDP No. 1-88-115 authorized the annual dredging and disposal of up 75,000 cubic yards of accumulated bottom sediments from five locations within the harbor at both upland and aquatic disposal sites.

This permit was subsequently amended twice to: (a) extend the expiration date by seven months to March 31, 1999 (1-88-115-A1); and (b) to further extend the permit term to September 30, 1999 and allow for an additional 10,000 cubic yards of materials to be dredged and placed at the upland disposal facility (1-88-115-A2). In addition, Emergency Permit No. 1-99-039-G was issued on June 14, 1999 to allow the District to dredge an additional 1,500 cubic yards of materials from two critical areas within the harbor where boat repair facilities had become inaccessible to vessels.

The District's work has been performed in conjunction with the U.S. Army Corps of Engineers (USACOE) dredging of the Entrance Channel and the Inner Harbor Basin Channel to a depth of –20 feet Mean Low Low Water (MLLW) and –15 feet MLLW, respectively. By comparison, the District maintains a design draft depth of between –10 to –15 feet MLLW for its boat marina and berthing areas. The entrance and inner channel dredging activities conducted previously in 2000 by the USACOE were the subject of Consistency Determination Nos. CD-080-98 and CD-081-98.

The District's Uplands Deposition Area disposal facility consists of an approximately 70,000-cubic-yard-capacity levee-walled sedimentation pond located adjacent to the harbor's small boat marina. During the USACOE's 2000 entrance and inner channel maintenance dredging season, approximately 18,000-20,000 cubic yards of dredged material was removed from the harbor and placed into the District's upland facility. Based upon the USACOE's 1998 estimate of a remaining capacity of approximately 38,000 cubic yards, the upland disposal facility can currently accommodate less than 20,000 cubic yards before reaching its designed containment quantity. Annually, the Del Norte Solid Waste Management Authority accepts and removes approximately 10,000 to 12,000 cubic yards of decanted spoils materials from the upland disposal facility for dry-season use as "day cover" at the Authority's sanitary landfill.

Aquatic disposal of suitable dredge materials was also authorized and undertaken in the past by the District. However, in 1997, following concerns raised by the California Department of Fish and Game regarding potential impacts to benthic organisms from direct spoils placement at one of its surf zone disposal sites off of South Beach, the District discontinued all of its nearshore disposal activities and depended solely on disposing of all dredged spoils, regardless of their suitability into its upland facility.

The District is currently seeking another ten-year permit from the USACOE for its dredging and indirect beach nourishment spoils disposal work and from the Commission

for its disposal work. The aquatic disposal would not include use of the former surf zone disposal sites off of South Beach that the Department of Fish and Game previously object to [see Exhibit Nos. 4 & 5].

On June 27, 2000, the State Lands Commission issued Dredging and Disposal Lease No. PRC 5202.9 granting permission to the District to dredge and dispose of sand, gravel, and silt and clay at approved disposal sites for the purpose of improvement of navigation [see Exhibit No. 7]. The lease commenced on August 1, 2000 with a ten-year term running through July 31, 2010. Although year-round disposal is provided for at the upland facility, near shore disposal at the Whalers Island site is limited to the period of August 1 through December 31 of each year.

B. PROJECT LOCATION AND DESCRIPTION

1. Project Location.

Crescent City Harbor is located on the Northern California coast about 280 miles nautical north of San Francisco and about 17 miles south of the California-Oregon border [see Exhibit Nos. 1 and 2]. The harbor is located on the south edge of a broad marine terrace bordered on the south and west by the Pacific Ocean and on the north and east by the urbanized area of the City of Crescent City. Marine-oriented commercial and recreational industries are the primary uses of the harbor area. Crescent City Harbor contains a 308-berth commercial small boat basin, a 527-slip recreational moorage facility, two fish processing plants and docks, a main dock, a marine synchro-lift and repair facility, a U.S. Coast Guard dock, and other auxiliary commercial and recreational developments.

The harbor's naturally crescent-shaped beach is bounded by a 4,700-foot-long, rubble-mound outer breakwater to the west, a 2,400-foot-long sand barrier to the east, and a 1,600-foot-long rubble-mound inner breakwater to the south, constructed by the USACOE in 1939. The harbor's entrance is oriented to the south and is about 2,000 feet across. The harbor bottom is an irregular rock surface, with numerous pinnacles projecting above the water's surface. Near the harbor entrance, the bottom material tends to be sand, with more finer-grained sediments found in other parts of the inner harbor.

The most prominent geographic feature of the harbor is Whaler Island, which reaches a height of +70 feet MLLW. Although historically an island, Whaler Island is connected to the mainland by a rock-revetted, sand barrier breakwater. In the mid-1980s following damage caused by direct and refracted storm waves, a 280-foot sill-groin structure was constructed from Whaler Island angling out and away from the island and breakwater. The resulting v-shaped cove formed by the rock groin and breakwater provides a small recreational beach sheltered from direct open ocean wave exposure. In addition the structure locally improved surfing conditions at upper South Beach and provides additional rock intertidal habitat.

2. Project Description.

The Crescent City Harbor District proposes to dispose of dredged spoils materials removed from portions of the harbor identified as Dredge Areas 2 through 5, comprising the harbor's inner channels, marina, and berthing facilities [see Exhibit No. 3]. No dredging in Area 1, the innermost portion of the small boat basin, is proposed during this ten-year maintenance cycle. Table 1, below, summarizes the proposed dredging quantities for its 2001-2010 harbor management program:

Table 1: Crescent City Harbor District 2001-2010 Maintenance Program Dredging Quantities

Dredge Area	Design Depth	Design Depth Yardage (yd^3)	Overdredge Depth	Overdredge Depth Yardage (yd^3)
1	-15 MLLW	N/A	-17 MLLW	N/A
2	-15 MLLW	49,739	-17 MLLW	78,819
3	-12 & -15 MLLW	99,073	-14 & -17 MLLW	146,736
4	-15 MLLW	89,647	-17 MLLW	125,745
5	-10 & -15 MLLW	59,621	-12 & -17 MLLW	105,720
Total Cumulative Yardage:		**298,080**		**457,020**

The dredge spoils are pumped from the floor of the inner harbor by the District's barge-mounted, hydraulic suction dredge. The suction dredge spoils slurry is conveyed via a 12-inch-diameter flexible pipeline to one of two deposition sites:

Uplands Disposal Site: Due to their grain size and/or the presence of chemical contaminants, materials originating in Dredge Areas 2, 4 and 5 will be deposited into the District's 15-acre Uplands Deposition Area disposal facility located to the north of the small boat basin. This facility, previously authorized for expansion to its current configuration under Coastal Development Permit No. 1-88-115 issued in 1988, consists of an approximately 70,000-cubic-yard-capacity, levee-walled sedimentation pond. Dredge slurry is discharged into the basin at its southeasterly side and flows through a series of four inter-connected settling ponds. Solids within the dredged materials slowly drop out of suspension and are deposited in the basin while the decanted water continues to flow through successive settling ponds, becoming decreasingly less turbid. Once the slurry water has reached the point where its suspended solids and settleable solids fall within acceptable standards set by the Regional Water Quality Control Board, they may be discharged back to the harbor. The sedimentation pond outfall is located at the southwest corner of the facility.

Aquatic Disposal Site: Spoils originating from Dredge Area No. 3 would be disposed of at the Beach and Nearshore Deposition Area located in the small inlet formed by the inner breakwater and a rockpile groin at Whaler Island. This material has been determined by the U.S. Environmental Protection Agency to be suitable for beach nourishment (i.e., ≥80% sand, without appreciable contaminants). This roughly

triangular-shaped area is about 300 to 600 feet in width and extends approximately 1,000 feet northeasterly towards South Beach from the vertex formed by the breakwater and groin. Dredged materials would be placed between the southern side of the breakwater and the groin, either in the surf zone at high tide, or on the perched beach at low tide. Where necessary, the sand would be spread mechanically to evenly distribute the sand over the deposition area. Due to dredging equipment limitations, the maximum quantity of material that would be disposed at any one time and any single site would be approximately 800 cubic yards during an 8-hour workday. Due to concerns regarding potential impacts to razor clam beds previously stated by the California Department of Fish and Game, the District does not propose any aquatic disposal for direct beach nourishment at the former South Beach disposal area.

In addition, a truck-mounted clam-shell dredge is used to remove materials from boat slips and berths where there is not adequate room in which to station the barge dredge. These materials would be trucked directly to the Uplands Disposal Site.

As discussed previously, this coastal development permit is only for the deposition of dredged spoils materials. The aquatic disposal into near shore waters is a non-exempt form of development occurring within coastal waters. Likewise, the placement of dredged spoils of any quantity at the upland disposal site is a non-exempt form of development in proximity to coastal waters. The actual dredging activities, which are required for the maintenance of both existing navigational channels and non-navigational berthing and moorage areas, are exempt from coastal development permit requirements. Section 30610(c) of the Coastal Act exempts maintenance dredging of existing navigation channels pursuant to a permit from the United States Army Corps of Engineers from requirements for a coastal development permit. Similarly, Coastal Act Section 30610(d) provides that any method of routine maintenance dredging that involves the dredging of less than 100,000 cubic yards in any twelve month period be exempted from coastal development permit requirements. The dredging activities that will provide both the materials deemed suitable for indirect beach nourishment and those requiring upland disposal have been conceptually approved by the USACOE and are currently under review as General Permit Application File No. 24221N. The USACOE permit pending approval would allow no more than 100,000 cubic yards of material to be dredged in each one-year dredge season using a hydraulic suction dredge. Only dredged material deemed suitable using USACOE / U.S. Environmental Protection Agency standards (i.e., materials dredged from Dredge Area 3) is proposed to be used for indirect beach nourishment. To assure consistency between Commission and USACOE authorizations, the Commission attaches Special Condition No. 1, requiring the applicant to provide a copy of the companion dredging and disposal permit once it has been issued.

Determining the Suitability of Dredge Spoils for Aquatic Disposal

The suitability of dredge spoils for ocean disposal is a function of the biological, chemical and physical qualities of the subject materials as determined through sediment sample analysis. The applicant has provided a baseline evaluation of the suitability of the

dredge materials for beach disposal. This evaluation is contained within the report titled "Sampling and Analysis, Crescent City Harbor District, Crescent City, California," by AET Applied Environmental Technologies, Inc. of Ventura, California, dated November 9, 1999.

Grain-size composition is an important indicator of aquatic disposal material suitability from both physical and chemical perspectives. First, the fractional make-up of dredged materials being considered for aquatic disposal, and especially those intended for beach nourishment applications, should approximate that found in the receiving waters area. If the spoils materials differ markedly in composition from those found at the proposed disposal area, they may either accumulate in the vicinity of the disposal site, burying underlying marine organisms, or conversely, be mobilized in littoral transport when intended to remain in a given place (i.e., direct beach nourishment). Second, the coarser the dredge spoils, the less likely chemical contaminants are to be present, as they are generally associated with finer fractions, such as silts and clays.

The report first presents grain size data collected from four sets of composite samples taken at 16 locations within the areas proposed for dredging (Areas 2-5). In addition, composition samples were also taken at four adjacent locations, including the proposed Whaler Island aquatic disposal site (Areas 8 & 9) [see Exhibit No. 4]. The samples were analyzed to the nearest 1% for sand, silt, and clay consistent with procedures defined in: "Procedures for Handling and Chemical Analysis of Sediment and Water Samples," by Russell H. Plumb (1981), USACOE Technical Report EPA/CE-81-1, pages 3-28 to 3-47. Further, measurements of the percentage of material retained in a #200 sieve were also recorded. Table 2, below, summarizes the results of the physical materials investigations. For ease of reference, the composition of materials proposed for aquatic disposal and those within the receiving water, especially their sand content, have been shaded and highlighted .

Table 2: Summary of Crescent City Harbor Materials Composition Investigations, August 1999

Grain Size (%)	Sample Locations							
	Harbor Dredging Source Areas				Beach / Nearshore Disposal Areas			
	2	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Wood	17.32	1.77	6.46	1.89	0.00	0.00	0.00	0.00
Gravel	0.00	0.00	0.00	0.00	0.00	1.05	0.49	0.00
Sand	52.41	**88.88**	51.71	56.61	98.57	98.74	**97.37**	**99.19**
Silt	20.81	6.44	28.27	30.77	0.64	0.52	1.44	0.66
Clay	9.47	2.92	13.57	10.74	0.74	0.69	0.70	0.15
% Retained in #200 Sieve	69.72	**90.64**	58.16	58.50	98.57	98.79	**97.86**	**99.19**

Chemical analysis to characterize the composition of the sediments to be dredged from the harbor and to identify any compounds that may potentially be released as dissolved

constituents to the proposed receiving water and sediment was also conducted. Among the classes of compounds examined were: (a) polynuclear aromatic hydrocarbons; (b) total recoverable petroleum hydrocarbons (TRPH); (c) pesticides; (d) polychlorinated biphenyls (PCBs); (e) organotins (as mono-, di-, & tri-butyltin); (f) metals and non-metals (arsenic); (f) total organic carbon; and (g) total solids/water content. Table 3, below, summarizes the results of these chemical analyses. For ease of reference, the chemical composition of materials proposed for aquatic disposal have been shaded.

Table 3: Summary of Crescent City Harbor Chemical Investigations, August 1999

Constituent	Detection Limits	Harbor Sample Locations			
		2	3	4	5
	(mg/kg)				
Polynuclear Aromatic Compounds					
Benzo *a*-anthracene	20	48	**ND**	26	32
Benzo *a*-pyrene	20	ND	**ND**	29	ND
Benzo *b*-fluoranthene	20	33	**ND**	25	27
Benzo *k*-fluoranthene	20	71	**21**	30	59
Chrysene	20	39	**ND**	34	38
Fluorene	20	26	**ND**	40	98
Phenanthrene	20	128	**ND**	22	36
Pyrene	20	108	**ND**	41	93
TRPH	10	ND	**ND**	ND	ND
Organophosphate Pesticides	0.5 – 30	ND	**ND**	ND	ND
Polychlorinated Biphenyls	20	ND	**ND**	ND	ND
Organiotin Concentrations					
Monobutyltin	1	ND	**ND**	ND	ND
Dibutyltin	1	ND	**ND**	ND	ND
Tributyltin	1	2	**ND**	ND	ND
Metals and Non-Metals					
Arsenic	0.1	3.26	**3.10**	3.56	3.44
Cadmium	0.1	0.32	**0.17**	0.19	0.42
Chromium	0.1	66.4	**62.6**	73.9	68.8
Copper	0.1	30.7	**13.5**	25.5	29.3
Lead	0.02	4.20	**2.50**	4.99	5.75
Mercury	0.1	0.09	**0.06**	0.15	0.17
Nickel	0.1	102	**96.8**	115	105
Selenium	0.1	0.71	**0.68**	0.54	0.63
Silver	0.1	ND	**ND**	ND	ND
Zinc	0.2	67.6	**33.2**	47.7	59.1
Total Organic Carbon (%)	N/A	5.17	**6.04**	6.09	5.56
Solids (%)	N/A	52.4	**59.1**	53.7	57.0

Associated suspended particulate phase (SPP) and acute solid phase (SP) bioassay testing was conducted in accordance with the U.S. Environmental Protection Agency's and USACOE's inland and ocean testing manual protocols utilizing bivalve, polychaete, and amphipod subjects. In addition, four control samples were taken from four locations in and proximate to the proposed Whaler Island disposal site. Analytical measurements were also compared with reference values derived from cadmium chloride (CdCl) toxicity testing. Table 4, below, summarizes the results of the bioassay investigations:

Table 4: Summary of Crescent City Harbor Bioassay Investigations, August 1998 - August 1999

Bioassay Test Parameters	Harbor Sample Locations			
	2	3	4	5
Suspended Particulate Phase (Concentration %)	**Survival (%)**			
0 (Control)	88.9			
1	82.5	**83.1**	78.5	83.4
10	70.2	**79.6**	78.4	81.9
50	51.3	**84.5**	64.5	35.9
100	0.0	**71.4**	0.5	0.64
Solid Phase (10-Day Sediment Toxicity)	**Survival (%)**			
Neanthes arenaceodentata	96	**96**	92	88
Control	96			
Reference (CdCl)	100			
Rhepoxynius abronius	63	**91**	83	73
Control	92.5			
Reference (CdCl)	87.5			

Based upon the results of these analyses, the dredge materials within Area 3 of the Crescent City Harbor were determined by the U.S. Environmental Protection Agency to be suitable for aquatic disposal. Conversely, due to their more mixed grain-size composition, elevated contaminant levels, and/or toxicity to marine organisms, the dredge spoils from Areas 2, 4, and 5 would not be suitable for beach and/or ocean disposal and are proposed to be placed instead within the Uplands Deposition Area disposal site.

C. NEED FOR DREDGING - FACILITATION OF NAVIGATION

The Crescent City Harbor is one of only six harbors located along the North Coast, and is the primary recreational port between Brookings Oregon and Trinidad California. The District maintains approximately 835 berths and dory ties within the Harbor which are used by a variety of recreational and commercial vessels.

Maintenance dredging (including the disposal of associated spoils) of inner channels in Crescent City Harbor supports the navigational and commercial needs of the Crescent City Harbor District, the U.S. Coast Guard, and commercial fishing and recreational boats using the harbor. The Coastal Act contains strong policy language and legislative direction supporting and encouraging protection of "coastal-dependent" and "coastal related" uses, including shipping and boating uses, and commercial and recreational fishing activities. Sections 30101 and 30101.3 of the Coastal Act defines the terms "coastal-dependent" and "coastal-related," respectively, as follows:

> *"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.*
>
> *"Coastal-related" development means any use that is dependent on a coastal-dependent development or use.*

Coastal Act Section 30001.5 states in part:

> *The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:…*
>
> *(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast…*

Section 30220 provides that:

> *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Section 30224 provides that:

> *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.*

Section 30234 provides, in part:

> *Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded ....*

Section 30234.5 provides in part:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Coastal Act Section 30255 provides:

> *Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.*

Dredging maintenance of the channels within the harbor, including the proper disposal of resulting spoils materials, is necessary to provide access to berthing, unloading and loading, and repair areas. These channels need regular dredging in order to maintain the depth necessary for ingress and egress into the bay. The Coastal Act supports the proposed maintenance dredging and spoils disposal program in Crescent City Harbor, because it is necessary to accommodate high priority uses such as those identified in Sections 30220, 30224, 30234, 30234.5, and 30255 of the Coastal Act.

D. FILL IN COASTAL WATERS AND PROTECTION OF MARINE RESOURCES

The proposed aquatic disposal / indirect beach nourishment portion of the project entails the placement of suitable dredged material on the beach and below the Mean High Tide Line (MHTL). This proposed placement of dredged material is a form of fill.

Section 30108.2 of the Coastal Act defines fill as:

> *…earth or any other substance or material ... placed in a submerged area.*

Section 30233(a) of the Coastal Act reads as follows:

> (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following [including]: ...

> *(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps ...*

In regards to the use of fill materials in beach replenishment applications, Section 30233(b) of the Coastal Act states:

> *Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.*

Section 30230 of the Coastal Act provides:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 provides, in part:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored ...*

The above policies set forth a number of different limitations on what development projects may be allowed in coastal waters. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

a. that the purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;

b. that feasible mitigation measures have been provided to minimize adverse environmental effects;

c. that the project has no feasible less environmentally damaging alternative; and

d. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

1. Permissible Use.

The first test set forth above is that any proposed fill, diking or dredging must be for an allowable purpose as specified under Section 30233 of the Coastal Act. The proposed fill would result from the disposal of suitable dredge spoils at the Whaler Island Beach and Nearshore Deposition Area for the indirect nourishment of the beach where The disposal site is located in an area that has previously experienced erosion along the breakwater revetment. The proposed development requests the placement of up to an estimated 99,073 cubic yards of beach suitable material over the ten-year maintenance program upon the beach and nearshore area between the Whaler Island breakwater and groin. This proposed development is an allowable use pursuant to Section 30233(a)(2) and 30233(b) of the Coastal Act as the proposed dredged material disposal is for the purpose of maintaining previously dredged depths in vessel berthing and mooring areas.

2. Providing Feasible Mitigation Measures.

The second test set forth by Section 30231 and 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The applicant has submitted information prepared by the USACOE in August 1998 for its Fiscal Year 1998 federal navigation channel operations and maintenance dredging of the Crescent City Harbor. This Final Environmental Assessment (FEA), prepared pursuant to the National Environmental Policy Act (NEPA), indicates that, due to the physical and chemical prerequisites for suitable aquatic disposal, the quantity limitations on the amount of dredge spoils being placed, and the seasonal limitations to avoid fish and wildlife mating seasons, adverse impacts to fish and wildlife habitat will be insignificant and short-term.

In addition to the conclusions contained within the FEA, Commission staff have consulted with staff from the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the California Department of Fish and Game regarding potential project impacts to fish and wildlife habitat associated with aquatic dredge spoils disposal. Based on information contained in the FEA and from the various agency consultations, the following environmental habitat analysis has been prepared:

Nearshore Environmental Characteristics

The Crescent City Harbor comprises an inlet of the North Pacific Ocean. The immediate nearshore area contains many of the most valuable marine resources within the North Coast and includes a diverse complex of marine habitats including deep sea, open ocean, kelp forests, sandy beaches, rocky seashore, estuaries and sloughs. These habitats support a variety of marine life including more than 345 species of fish, 94 species of seabirds, 26 species of marine mammals, 450 species of algae and one of the worlds most diverse invertebrate populations.

Beginning in 1939, the Crescent City Harbor was developed in a natural cove at the base of the Elk Creek estuary. Water originating from Elk Creek watershed drains into the northern end of the Harbor, northeast of the developed inner harbor area. Except for the coastal salt marsh and brackish muddy intertidal habitat areas within the lower reaches of Elk Creek, most of the northern harbor is now essentially a man-made environment that is devoid of the natural estuarine habitat that once prevailed there. The margins of the open waters of the harbor are surrounded, from the western and southern jetties, entirely by urban development. Thus, for the most part, the tidal waters of the Harbor are an enclave that is surrounded by urban development consisting of boats, floating docks, rip-rap revetments, roads and parking lots, public facilities and parks, a recreational vehicle park, and various other buildings associated with coastal-dependent and visitor serving uses. Nonetheless, some marine mammals, fish and seabirds make use of the aquatic and terrestrial environments provided in the Harbor and its surroundings.

The sandy beach areas adjacent to the Harbor included in the project area are very harsh environments, encompassing most of the rigors of the rocky intertidal (high wave action, wide temperature range, periodic tidal exposure) with the addition of high abrasion levels and lack of firm substrate for attachment. Beach fauna exhibit the characteristics of communities in harsh environments, namely low species diversity but large numbers of individuals of each species. Because meiofauna (organisms inhabiting the interstitial spaces between the sand grains) are a distinct fauna from the more obvious macrofauna, the distribution of meiofauna is strongly influenced by the grain size of the sand. If there is a significant silt component in the sediment, the interstitial spaces are filled by the silt particles, impacting the interstitial fauna. However, in this case, because Special Condition No. 6 of this permit only allows the disposal of sandy material (over 80%), the impacts to meiofauna will be temporary and less than significant.

Despite the barren appearance of sand beaches, they support a diverse and abundant assemblage of macrofauna. These animals generally live buried in the sand, and are highly mobile, and are somewhat more difficult to study than, for instance, the more sessile organisms of rocky intertidal zones. Because the beach is a physically rigorous environment, physical factors often limit the distribution of these organisms.

These areas which macrofauna and meiofauna depend upon are subject to the influences of waves and tidal currents that keep beach material (their habitat) in continuous motion. Material generally moves across the beach or foreshore or even offshore in a process called littoral transport. This process generally moves material in a southeasterly direction at Crescent City Harbor and is most rapid under storm conditions. Beach structure at the project site is consistent with other Northern California beaches in that it exhibits a classic beach structure that is backed by a broad coastal plain, and bordered seaward by a sand dune berm, beach flat, trough, and surf line bar. In addition, there is a seasonal onshore-offshore movement of sand along this reach of coast, with steeper beach slopes and offshore bars in the winter, and gradual consistent slope in the summer.

Wave action produces a coarse, poorly consolidated, well-sorted (i.e. low variation in grain size), and therefore easily moved beach deposit behind the surf zone. Large waves lift these surface sediments into a granular suspension tossed shoreward and then seaward by the passing waves. Extreme storm waves can remove as much as a meter of surface sediments at water depths greater than 10 meters. The physical stability of the beach deposit increases with increasing water depth as wave-generated bottom currents decrease. As a result, bottom sediments grade from coarse to fine sand with increasing water depth and decreasing wave disturbance. Thus, under the proposed project, the relatively coarse sandy dredge materials are expected, for the most part, to become entrained in the local littoral cell and migrate first toward South Beach or the harbor entrance, and eventually undergo longshore transport downcoast.

Biological Setting

Mollusks: The intertidal reaches of South Beach provide habitat to a variety of infaunal organisms, most notably Pacific razor clams (Siliqua patula) and Little-neck clams (Protothaca sp.). The Pacific razor clam is an important bivalve mollusk harvested extensively by commercial and sport fisheries throughout its range from Pismo Beach, California, north to the Aleutian Islands. Razor clams live in surf-swept and somewhat protected sand beaches of the open ocean. They are found from approximately 4 feet above the mean low water level down to depths of 180 feet. Little-neck clams are found from Baja California to the Aleutian Islands in coarse, sandy-rock muds of estuaries and on the open coast where they form dense colonies. High siltation caused by logging, upland development, dredging, and marina construction affect the abundance of Pacific littleneck clams. In addition, this species of clam is very sensitive to copper which is used in anti-fouling boat paint.

Crustaceans: The most prominent and commercially significant epifaunal species in the harbor and its environs is the Dungeness crab (Cancer magister). Adult crabs live on a variety of substrates, but generally prefer sandy-mud bottoms. Dungeness crabs are highly mobile, diurnally migrating between shallow and deeper waters in response to food availability. In addition, they change depths in response to local conditions, such as during storm surges. Adult Dungeness crabs congregate on the shallow sandy areas between March and July. From September through November, egg brooding females will partially bury themselves in shallow subtidal waters until their eggs hatch. The first life phase of young crabs is planktonic. As they mature into juveniles, the larvae settle out and remain in shallow water for 11 to 15 months before moving offshore. Sand crabs (Lepidopa sp, Blepharipoda sp.) also inhabit the harbor area.

Fishes: The water areas adjacent to the harbor proposed for aquatic disposal are inhabited by a wide variety of fish species, including Pacific herring (Clupea harengus (pallasi Valenciennes)), rockfish (Sebastes sp.), lingcod (Ophiodon elongatus), jacksmelt (Atherinopsis californiensis), *chinook* salmon (Oncorhynchus tshawytscha), *coho* salmon (Oncorhynchus kisutch), coastal cutthroat trout, (Oncorhynchus clarki clarki), steelhead (Oncorhynchus mykiss), and others.

The range of Pacific herring encompasses much of the North American west coast from northern Baja California to the Bering Straits. While generally a pelagic species, mature fish return to coastal bays commencing in late November and early December, approximately two months before they spawn. The peak spawning period runs from January to March, with a second small but prominent spawning peak occurring from June to July. In large schools of mature fish, spawning occurs over a period of 1-7 days, most activity occurring at night. Eggs are spawned in the intertidal and subtidal areas. The eggs are adhesive, attaching most commonly on eelgrass (Zostera marina) and occasionally on other algae. Where eel grass is not as abundant, herring are known to broadcast eggs on rocks, rocky jetties, pilings, sandy beaches, and other submerged objects. An individual can spawn only once during the season, and the spent female returns to the ocean immediately after spawning.

Rockfishes are common inhabitants of the harbor area. Although their habitat and behavior are poorly known, juvenile rockfish are generally found near the ocean bottom, preferring water depths of 30 to 100 feet. The age of maturity is unclear in the literature, however, rockfish are known to spawn in Crescent City Harbor in winter and early spring. The eggs are internally fertilized and the resulting larvae are released in the water column in the spring and dispersed widely by ocean currents.

Lingcod are widely distributed in coastal waters, ranging on the North American west coast from Baja California to Kodiak Island, Alaska. The species inhabits subtidal rocky areas, rocky crevices, and sometimes in intertidal reefs, at depths of 10 to 30 feet, as well as pelagic waters. Along the California coast, the mating season is December through March. Lingcod deposit large, strongly adhesive clusters of eggs on rocky reefs in the subtidal zone. The male fish guards and fans the eggs until hatching (about 6-7 weeks). The larvae are pelagic and extend their ranges from estuaries, to coastal waters, to deep offshore shelves. Small juveniles are mainly epipelagic, thereafter becoming demersal and concentrating near rocky inshore areas as they mature into adult individuals.

Jacksmelt are found in bays and ocean waters throughout the year, ranging from Baja California to the northern Oregon coast. They are schooling fish that prefer shallow water less than 100 feet deep and are most common in 5- to 50-foot depths. During late winter and early spring, jacksmelt immigrate from nearshore coastal areas to bay waters to spawn. Eggs are demersal and adhesive. Large schools of juveniles remain in the Bay through the summer, emigrating to coastal waters in the fall. Juvenile jacksmelt mature into adult individuals after two years.

Chinook and *coho* salmon, along with the Klamath Province steelhead and coastal cutthroat trout are the primary anadromous fish species that utilize the project area for habitat. Although highly variable by species and race, anadromous fish generally spend most of their lifecycles within the open ocean, transiting through nearshore waters only to enter freshwater streams, creeks, and rivers during seasonal mating "runs" occurring throughout the year. While technically the anadromous form of rainbow trout, the

morphology and life cycle of steelhead is more closely related to Pacific salmon species. However, unlike salmon, steelhead do not usually die after spawning, but may have multiple mating years. In addition, the time in freshwater for both rearing juvenile and adult steelhead is generally more extended and variable compared to that for salmon.

Marine Mammals: Three species of Pinnipeds, the Stellar's (Northern) Sea Lion (Eumetopias jubatus), the California Sea Lion (Zalophus californianus), and the Pacific harbor seal (Phoca vitulina), inhabit Crescent City Harbor and its surroundings. Stellar's Sea Lions range from San Miguel (Channel) Island to Alaska. They are social animals, living in groups along the coast that grow especially large during breeding season that runs from mid-May to mid-July. Locally, Stellar's Sea Lions have established large rookeries at Sugarloaf Rock near Point Saint George and Castle Rock in Humboldt County. By contrast, the breeding range and rookeries of California sea lions are generally limited to islands of southern California, western Baja California, and the Gulf of California, where females remain with their brooding young. Only males of the species are known to move throughout its full range, spanning northward to the Gulf of Alaska. Harbor seals are found in the northeast Pacific ranging from Alaska to Baja California. They favor near-shore coastal waters and frequent sandy beaches, mudflats, bays, and estuaries. Adult females usually mate and give birth every year. In California, harbor seal pups are born in March and April.

Protecting the General Marine Environment

The applicant is proposing several measures to avoid any adverse effects to the general marine environment. These measures include avoiding the use of sediment dredged from areas where sediment testing indicates incompatibility in physical composition and/or the presence of elevated contaminant levels. These areas to be avoided include Dredge Areas 2, 4, and 5 corresponding to the inner and outer portions of the small boat basin, Citizen's Dock, and the mooring berths and boat slips along the north side of the Whaler Island breakwater [see Exhibit No. 3]. Avoiding the use of materials from these areas will preclude the application of spoils whose grain size composition is not compatible with that of the receiving waters and/or prevent release of contaminants.

Additionally, due to the inherent limitations of the District's suction dredge, beach and nearshore disposal is restricted to 800 cubic yards per workday. While the associated maintenance dredging will be conducted on an part-time, as-needed, site specific basis, it is estimated that the District is capable of performing a maximum total of 88,000 cubic yards of beach disposal per year. By limiting the scope of this indirect beach nourishment project, the District's proposal will not have significant impacts on marine or estuarine waters.

Protecting Biological Resources

Generally, the greatest potential for environmental effects from dredged material discharge lies in the benthic environment. In this case, the subject benthic environment includes ocean bottom flora and fauna of the sandy intertidal areas between Whaler

Island and South Beach. Under the proposed project, dredge slurry would be pumped from Harbor navigational channels and berths into the surfline at the Whaler Island breakwater/groin-sill covelet or immediately offshore in the vicinity of the harbor's southern breakwater. The substrate of benthic environment in these locations consists of sandy beach and/or a sandy ocean bottom. These environments are dynamic and contain ever-changing habitats for a variety of benthic species due to their location within a counter-clockwise gyre caused by the harbor within the otherwise southerly littoral cell in the waters off of South Beach.

Adverse impacts to fish and other marine organisms, and wildlife would be minor, short-term. Only those materials from Dredge Area 3, determined to be appropriate for aquatic disposal and beach nourishment applications, will be disposed of in coastal waters. Further, due to limitations associated with the District's dredging equipment, only a nominal amount of dredge spoils would be released into the receiving nearshore area. Furthermore, clam bed areas formerly exposed to potential dredge disposal associated with past direct beach nourishment activities on South Beach will not be so affected by disposal at solely at the Whaler Island inlet. Moreover, although upland disposal activities may occur year-round, aquatic disposal is limited to the period of August through December, prior to the mating season of the various affected epifaunal species.

Nevertheless, while Dungeness crabs are highly mobile, it is possible that some mortality of individuals would result from the dredge spoils aquatic disposal. However, crabs will generally avoid any localized negative water quality effects and leave the area of disturbance. In addition, the project work is scheduled to avoid mating season, when crabs concentrate in the shallows, further minimizing any impacts. A similar situation exists with respect to other marine fishes. While adults and juveniles are mobile enough to avoid the disposal area, the project is scheduled to occur when sessile eggs would not be exposed to potential short-term burial impacts.

Lingcod, the numerous rockfishes, and *coho* and *chinook* salmon are among the 89 species identified by the National Marine Fisheries Service (NMFS) for which Essential Fish Habitat standards were developed pursuant to the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act. "Essential Fish Habitat" (EFH) is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." "Waters" include aquatic areas and their associated physical, chemical and biological properties. "Substrate" includes sediment underlying the waters. "Necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem. "Spawning, breeding, feeding, or growth to maturity" covers all habitat types utilized by a species throughout its life cycle. Among the requirements of the program is a directive to federal action agencies to consult with NMFS regarding potential adverse effects of their actions on EFHs and respond in writing to the Service. As of the date of the writing of this report, the USACOE has not released its required response to the Services comments regarding appropriate conservation measures (if any). Commission staff have discussed with

NMFS personnel the potential adverse impacts the project might have on EFH and if any conservation measures might be suggested. NMFS staff have indicated that, based on the project's disposal material screening criteria, limitations on amount being disposed at any given time, and the seasonal restrictions to avoid EFH species mating seasons, the Service has identified no adverse impacts to EFH at this time.

Coho salmon inhabiting the Southern Oregon – Northern California Evolutionarily Significant Unit (ESU) were listed as "threatened" by the NMFS under the Federal Endangered Species Act (FESA) on June 5, 1997. On May 5, 1999, all river reaches accessible to listed coho salmon between Cape Blanco in Oregon and Punta Gorda in California were designated as critical habitat area. *Coho* salmon spawn in coastal streams in the fall or winter, such as Elk Creek, with the juveniles remaining in freshwater for their first year. Juvenile *coho* returning to the open ocean to feed generally do not spend much time in the harbor area and would likely head straight out to open ocean to commence feeding. The project site is located outside of the designated critical habitat area for the species. In addition, *coho* would not be expected linger in the aquatic disposal area. If individual coho were to stray into the disposal area, the fish are highly mobile and could avoid any of the proposed spoils disposal activity.

On November 15, 1999, NMFS listed the *chinook* salmon as "threatened" for the southern portions of the California Coastal ESU from Redwood Creek in Humboldt County to the Russian River in Sonoma County. Similar to that for *coho* salmon, it is not anticipated that *chinook* salmon would linger within nearshore waters of the harbor area when transiting from ocean to freshwater spawning grounds. Those individuals who might enter the dredge spoils disposal area during deposition activities are highly mobile and can avoid any of the disturbed waters.

In 1996, the National Marine Fisheries Service (NMFS) proposed to protect the steelhead of the Klamath Mountain Province (Oregon & California) ESU. In 1998, NMFS ruled that the subject ESU of steelhead did not warrant protection at that time even though agency biologists found that the fish were likely to be in danger of extinction in the future. Subsequently, on August 7, 2000, NMFS listed the species as "threatened" for the southern portions of the ESU from Redwood Creek in Humboldt County to the Gualala River in Mendocino.

No recent studies to establish presence or absence of steelhead within developed Harbor areas have been conducted. The Commission notes, however, that ideal habitat for this species does not occur in the harbor, but rather may be located to the north of the harbor in Elk Creek and outside of areas subject to dredge spoils aquatic disposal operations.

Although no impacts to Stellar Sea Lions is anticipated, harbor seals utilizing the inner harbor shoreline during pupping may be subject to disturbances associated with the disposal of dredge spoils materials at the Uplands Deposition Area. While harbor seals swim safely in the surf, they will often curiously watch humans walking on beaches.

However, they are wary of people while on land, and will rush into the water if approached too closely or disturbed. In fact, they have been known to abandon favored haul-out sites or pups if disturbed too frequently. Since these seals are often born on beaches accessible to people, pups frequently are picked up by would-be rescuers who believe the pups to be abandoned. Most likely, the mother is in the water hunting. This problem has caused many seals to be unnecessarily orphaned. Although the birthing period for harbor seals occurs when spoils are not being disposed of at Whaler Island site, it is possible that harbor seal pups might be found on the inner harbor shore in proximity to the uplands disposal facility. To avoid potential abandonment of harbor seal pups, the Commission attaches Special Condition No. 2 that requires the applicant not conduct dredge disposal operation if harbor seals are found on the beach within 500 feet of the facility.

Protecting Sand Supply

With respect to sand supply impacts, the proposed use of dredged material for indirect beach nourishment will incrementally mitigate the ongoing erosion of the District's harbor beaches, helping to protect recreational use of the beach and existing structures along the beach. As conditioned, the proposed project will not have any adverse impacts on local sand supply.

Protecting Water Quality

The suitability of the proposed dredge material for disposal in any of the proposed aquatic locations has been evaluated by representatives from the USACOE, the U.S. Environmental Protection Agency, and the North Coast Regional Water Quality Control Board. Advisory to these agencies are the U.S. Fish & Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish & Game. These agencies have considered the chemical and biologic test results, as well as grain size analyses, submitted by the District. These test results were reviewed according to the guidelines within the testing manual entitled "Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual (the Inland Testing Manual or ITM, published in February, 1998 by the U.S. Environmental Protection Agency and the ACOE). Based on the test results contained within the document titled "Sampling and Analysis, Crescent City Harbor District, Crescent City, California," (AET Applied Environmental Technologies, Inc. of Ventura, California, November 9, 1999), these agencies have concluded that the proposed dredge material from Dredge Area 3 is suitable for aquatic disposal. Staff Report Section IV.B.2, above, details the results of the physical, chemical, and bioassay analyses.

Anticipated water quality impacts would occur through variables such as dissolved oxygen (DO), pH, salinity, total suspended solids (TSS), and turbidity. Turbidity near the dredging and disposal sites would increase because of additional TSS in the water column. DO levels in the water column would decrease during disposal events due to increased turbidity. While these impacts would occur, the pre-dredge operation ambient water quality condition recurs shortly after each dredging episode, and thus the impact to

these water quality variables is expected to be adverse, but short-term and minor in magnitude and scope. The North Coast Regional Water Quality Control Board has issued waste discharge requirements for the project [see Exhibit No. 8]. These requirements include weekly monitoring and set limits on suspended and settleable solids (100 µg/l and 1 µg/l 30-day average, respectively) in the effluent released from the Uplands Deposition Area and turbidity at the Beach and Nearshore Deposition Area (increased by no more than 20% of naturally-occurring background levels).

To ensure that the proposed method of dredge spoil disposal is consistent with Federal, State, and local regulations regarding the protection of water quality, the Commission attaches Special Condition No. 5, requiring the submission of a turbidity monitoring plan. The plan will set forth the methods by which the District will document turbidity at the aquatic disposal site and would detail what measures would be used to keep turbidity within acceptable limits. In addition, to ensure that the project is in overall conformance with other authorizations affecting water quality, the Commission attaches Special Condition No. 6, requiring the submission of an annual report detailing all dredging and spoils disposal activities conducted during the previous calendar year. The report would include copies of effluent and turbidity tests, and relevant review correspondence from the USACOE, NCRWQCB, and the CSLC.

Therefore, as conditioned by Special Condition Nos. 5-6, the project will include measures and monitoring protocols to ensure protection of water quality and marine resources in Crescent City Harbor.

Length of Permit

Finally, with respect to the applicant's request for a permit life of 10 years, the Commission finds that a permit life of such length would be inconsistent with the resource protection policies of the Coastal Act. The areas subject to dredge and disposal operations are dynamic environments that are and will continue to be subject to a variety of natural and man-made processes. There is a myriad of potential future changed circumstances that may affect the future implementation of this permit. For example, the Harbor lies at the juncture of the Pacific Ocean and the Elk Creek watershed. There is a continual and substantial exchange of energy and matter between these two areas. In addition, various land uses and development types and biotic communities interact on a daily basis in this area. In short, potential future changed circumstances that may affect the implementation of this permit might include: (1) future listing of specie(s) that occurs within harbor and nearshore areas; and (2) unforeseen rise in contaminant levels of harbor sediments from new upstream land uses or spill events. Therefore, to enable the implementation of this permit in a manner which best addresses potential future changed circumstances, the Commission finds that, only as conditioned by Special Condition No. 3(A)(5), which limits the authorization for development to a period of five (5) years, can the project be found consistent with the above listed resource protection polices of the Coastal Act. The District would be able to apply for a new permit for future dredging to occur more than five years from now.

Thus, the Commission finds that, only as conditioned by Special Conditions Nos. 1-3, which ensure that impacts to all other marine resources and environmentally sensitive habitats and species are minimized, can the proposed project be found consistent with the above listed policies of the Coastal Act. Therefore, only as conditioned to mitigate and avoid impacts to marine resources and environmentally sensitive habitat areas, as detailed above, does the Commission find the proposed project to be consistent with Sections 30230 and 30233 of the Coastal Act.

3. Least Environmentally Damaging Feasible Alternative.

Coastal Act Section 30233 does not allow the filling of coastal waters if there is a feasible, less environmentally damaging alternative to the project. Alternatives to the project as proposed must be considered before a finding can be made that the proposed fill is the least environmentally damaging feasible alternative. Potentially feasible less environmentally damaging alternatives identified and considered by staff include: (a) the "no project" alternative; (b) disposal of the materials via direct beach nourishment at South Beach; (c) disposal of all dredge spoils materials at the Uplands Disposal Site; and (d) disposal at the closest federally-designated ocean disposal site (CHETCO).

No Project Alternative

Under the no project alternative, no disposal of dredged spoils would occur. Without a site to dispose of dredge material, dredging within Crescent City Harbor would not be pursued once the limited capacity of the Uplands Deposition Area disposal facility was filled. Without dredging, boat slips, mooring berths, and turning areas within the harbor would become silted-in and unusable. Silting of the harbor's inner channel and docking areas would decrease the usefulness of the harbor for commercial fishing, recreation oriented boating, and other coastal-dependent uses. Accordingly, the no project alternative would have an adverse impact upon uses dependent upon coastal harbor waters. In addition, without dredging, materials appropriate for return into the littoral system would be precluded. This action would incrementally decrease the amount of material entering longshore transport and deprive area beaches from being nourished with suitable beach-quality sand materials.

Direct Beach Nourishment

Under this option, materials from Dredge Area No. 3 would be applied directly onto the shoreline at South Beach. A temporary pipeline would be used to convey materials from the dredge vessel to the beach where they would be deposited above the Mean High Tide Line.

The placement of additional sand materials along South Beach could result in significant adverse impacts to both terrestrial and nearshore habitat from encroachment into the adjacent coastal strand vegetation and burial of intertidal razor clam beds as the excess dredge spoils are subsequently mobilized by winds and storm surges.

The significant adverse impacts to razor clam beds was noted as a concern by the California Department of Fish and Game during the term of the previous coastal development permit. Accordingly, as the direct beach nourishment project alternative would have a significant adverse impact upon coastal resources that would not result from the proposed project, direct beach nourishment is not a less environmentally damaging feasible alternative.

Exclusive Upland Disposal

The third option examined involves the placing of all dredge spoils at the District's Uplands Disposal Site. Exclusive disposal at the upland facility would result in suitable beach-quality sand materials being diverted from the shoreline sand supply and deprive area beaches from being nourished with such materials. In addition, with additional dredge material entering the upland disposal site, the facility's capacity would be reached more quickly, necessitating the development of new disposal facilities, which, depending upon their location, could have impacts to other coastal resource areas. Therefore, this alternative would have greater significant adverse impacts than the proposed project and is, therefore, not a less environmentally damaging feasible alternative.

Ocean Disposal at the Closest Federally Designated Ocean Disposal Site

A final project alternative involves disposal of dredged materials suitable for unconfined aquatic disposal at the closest federally-designated ocean disposal site. Historically, the USACOE and the District have used "SF-1," located approximately 1.25 miles southwest of the harbor. However the site's availability as an approved disposal site under the Marine Protection Research and Sanctuaries Act of 1972 (MPRSA) lapsed on January 1, 1997; therefore this site is not usable under Section 102 of the MPRSA. It could be used under Section 103 of the MPRSA; however the Corps has not prepared the necessary analysis that would need to accompany an application for a "103" disposal request. Therefore, this site is not a feasible alternative at this time.

The next closest federally-designated ocean disposal facility is the Chetco Ocean Disposal Site (CHETCO). CHETCO encompasses an approximate .09 square nautical mile area and is intended for "dredged material determined to be suitable for unconfined disposal from the Chetco Estuary and River and adjacent areas." The facility is located approximately 18 nautical miles north-northwest of the Crescent City Harbor. Given the associated mobilization and transport costs, estimated at $100,000 and $12.00/cubic yard, respectively, it has not been determined if this facility is a feasible alternative for the District. In addition, this alternative would also result in suitable beach-quality sand materials being diverted from the shoreline sand supply and depriving area beaches from being nourished with such materials. Accordingly, dredge spoils at the closest federally-designated ocean facility is not a less environmentally damaging feasible alternative.

Conclusion

Because there are no feasible less environmentally damaging alternatives available for disposing of dredge materials to maintain adequate depths within the Harbor, the Commission finds that the proposed disposal project is the least environmentally damaging alternative.

4. Maintenance of the Marine Environment.

The fourth test set forth by Section 30231 and 30233 is that discusses how the project is whether the proposed dredging or filling project in coastal waters will maintain and, where feasible, enhance the biological productivity and functional capacity of the habitat. The project has been conditioned to mitigate any impacts to the marine environment. Conditions of approval will ensure that the marine environment will be maintained. Further, as the project involves an indirect beach nourishment component, returning dredged materials into localized littoral transport will help maintain South Beach whose natural sand supply was affected by construction of the harbor. Similarly, this aspect of the project will contribute to maintaining biological productivity and functional capacity by helping to offset sand supply disruptions caused by the presence of harbor improvements.

5. Conclusion.

The proposed project represents a portion of a comprehensive program for operations and maintenance activities necessary to maintain and improve navigation channels and berthing areas for recreational boating and commercial fishing, a recognized use under Coastal Act Section 30233(a)(2). A nearshore disposal site has been proposed established for indirect beach replenishment utilizing only physically and chemically compatible materials. The USACOE, Regional Water Quality Control Board and the State Lands Commission have conceptually approved these dredge disposal sites. Because there are no feasible less environmentally damaging alternatives available for disposing of dredge materials to maintain adequate depths within the Harbor; because feasible mitigation measures are provided through Special Conditions Nos. 1-6 to minimize adverse environmental effects, and because suitable sediments will be conveyed to appropriate beach replenishment sites to maintain the marine environment and its supply of sand, the Commission finds that the project is consistent with all applicable tests of Sections 30230, 30231, and 30233(a).

E. SAND SUPPLY

Section 30233(b) of the Coastal Act provides:

> *Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be*

> *transported for such purposes to appropriate beaches or into suitable long shore current systems.*

This section of the Coastal Act encourages placement of sandy dredge spoils in a manner that will ensure their return to the longshore transport system, when possible. The applicant is proposing to use all beach suitable dredge material for beach nourishment purposes. In order to ensure that the materials proposed for beach nourishment are suitable for such purposes, the applicant has had sediment testing performed to evaluate the physical characteristics of the materials [see Exhibit No. 4 and Staff Report Section IV.B.2, above]. The Commission is accepting the chemical testing and analysis completed to date for the proposed project. In this proposal, given the absence of industrial development in the area, the representative analysis is being accepted as sufficient without further investigation being required during the term of the permit. It is expected that the source of any additional pollutants, if any, would be from non-point sources and such urban runoff constituents would not be expected to significantly change over the course of the five year permit.

Furthermore, to ensure that only beach quality materials are used to nourish the beaches, the Commission attaches Special Condition No. 3(A)(1) that requires that material utilized for beach nourishment shall originate solely from Dredge Area 3, determined to have a sand content that is either equal to or greater than 80% sand or be within 10% of the sand content of the receiver beach. One of the concerns of any dredging project and spoils disposal is the loss of sand to the particular littoral cell, and the possible resulting erosion up- or down-coast. The Commission has expressed concerns over past Corps disposal at the formerly USEPA-certified "SF-1" Ocean Disposal Site, because it removes material from the littoral system, and the Commission has in fact encouraged such solutions as are currently being proposed by the District to dispose of suitable material at Whaler Island site. With the project constraints proposed by the applicant, based on the grain size and other test results to only use the Inner-Harbor Channel (Dredge Area 3) material for beach replenishment (because the other Inner Harbor materials are too silty and/or contaminated), the Commission finds that the material is suitable for beach replenishment and that the project is consistent with the sand supply policy Section 30233(b) of the Coastal Act.

F. VISUAL RESOURCES

Section 30251 of the Coastal Act requires that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas. Furthermore, Section 30240(b) of the Coastal Act states that development in areas adjacent to parks and recreation areas shall be sited and designed to prevent impacts

which would significantly degrade those areas, and shall be compatible with the continuance of those recreation areas.

Dredge spoils disposal operations present a temporary intrusion into visual resource areas and occur generally within the harbor itself or adjacent areas along the Crescent City Harbor Beach or in proximity to the Whaler Island breakwater. The harbor is generally visible from numerous public viewing areas. These include the harbor itself, the Highway 101 Crescent City Vista Point, Crescent and South Beaches to the south, the Highway 101 Elk Creek bridge and Beach Front Park to the north, the Battery Point Lighthouse to the northwest, and from the open ocean to the southwest. In terms of scenic areas of importance, the City of Crescent City LCP designates the southern Highway 101 entry into the city as its primary visual resource area.

The project elements that would occur within the public viewshed include: (1) the floating dredge itself, along with any floating sections of pipe; and (2) sections of flexible pipe placed on the beach to transport sediment for indirect beach replenishment or into the upland sedimentation pond. However, views of these facilities would not result in a significant impairment of scenic resources, for the following reasons: (1) the presence of the dredge would simply blend in with other vessels already visible and should not be counted as an adverse impact, and (2) the surface-lain flexible piping for transporting dredge spoils slurry would be similarly temporary and vary in locale, depending on the particular disposal destination of the dredged materials.

Therefore, given its temporary and transient nature, and the fact that the proposed dredging and disposal activity would not significantly alter scenic public views at Crescent City Harbor, the Commission finds that this project is consistent with Sections 30251 and 30240(b) of the Coastal Act.

G. PUBLIC RECREATION AND ACCESS

Coastal Act Section 30604(c) requires that every coastal development permit issued for new development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and recreation policies of [Coastal Act] Chapter 3." The proposed project is located seaward of the first through public road.

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. In particular:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of*

> *private property owners, and natural resource areas from overuse.* [PRC §30210]
>
> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.* [PRC §30211]
>
> *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects…* [PRC §30212(a)]
>
> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.* [PRC §30213]
>
> *The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case…* [PRC §30214 (a)]
>
> *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.* [PRC § 30221]
>
> *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, [..] providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.* [PRC §30224]

Likewise, Coastal Act Section 30240 (b) also requires that development not interfere with recreational areas and states:

> *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Crescent City Harbor provides public access and recreational opportunities of regional and Statewide significance. These opportunities include boat launching, berthing for commercial vessels and recreational boats, boat repair areas, marine-related retail/commercial businesses, sailing programs, yacht club and boat sales. The District's maintenance dredging project, including the proposed disposal of resulting spoils

materials, would strongly benefit public access and recreation, in two ways: (1) by restoring and maintaining adequate water depths in the harbor's navigation channels and berthing areas, and (2) by directing suitable sandy dredge spoils onto nearby nearshore areas for indirect beach replenishment.

Adverse impacts to public access are possible, but would be of limited duration. The flexible above-ground pipeline used to transport dredge spoils to designated disposal sites create, from time to time as they are moved about, a modest impediment to pedestrian travel along or to the beach. This pipeline is 12 inches in diameter, and may need to be traversed by persons walking across the Whaler Island breakwater's causeway or the inner harbor beach. Placement of this pipeline would be managed so that it would not form an unintentional continuous barrier, particularly with respect to the less-nimble beach visitors. In addition, the pipeline would be in any given location for only a short duration.

The District's dredging maintenance program is necessary to protect Coastal Act priority dependent uses. Although the transport of dredge materials to the disposal sites may potentially impact public access on portions of the Whaler Island causeway and Crescent City Harbor beach areas, the impact would not be significant and the dredge program is essential to allow for commercial and recreational boating access. To ensure that impacts to public access and recreation are minimized, the Commission attached Special Condition Nos. 4 and 7. These conditions set specific restrictions on aquatic dredge disposal operations to prevent disruption of significant coastal recreational use events, ensure that the availability of existing public accessways are not diminished, and avert any possible continuous barrier effects due to the presence of the slurry pipeline at either the aquatic and upland disposal sites are minimized.

Thus, the Commission concludes that the project as conditioned would protect boating and beach recreational opportunities consistent with Coastal Act Sections 30210, 30213, 30220, 30224, 30234 and 30234.5. Therefore, the Commission finds that, as conditioned by Special Condition Nos. 4 and 7 which mitigate for potential beach access impacts, the proposed project would preserve public access and recreational opportunities and, is consistent with the above-cited public access and recreational policies of the Coastal Act.

H. STATE WATERS

Portions of the project site are located in areas that were formerly State-owned waters, but remain otherwise subject to the public trust. On July 13, 1963, by Senate Bill No. 1383, the State of California transferred all rights, title, and interest to portions of the submerged and tidelands within Crescent City Harbor and surrounding ocean waters to the District. In granting these ownership rights, the State Lands Commission (SLC) has retained authority over these former sovereign lands through both exempted and reserved rights to all deposits of minerals, and its public trust responsibilities under the state Constitution. Granted lands are monitored by the SLC to ensure compliance with the

terms of the issued statutory grant. These grants encourage development of tidelands consistent with the public trust, while requiring grantees to re-invest revenues produced from the lands back into the lands where they are generated. Under this authority, on June 27, 2000, the SLC approved Dredging and Disposal Lease No. PRC 5202.9, authorizing the District to conduct the subject harbor maintenance program for an effective ten year period from August 1, 2000 through July 31, 2010.

I. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

As discussed above, the proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. As specifically discussed in the above findings which are hereby incorporated by reference, mitigation measures which will minimize or avoid all significant impacts have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally-damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

III. EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Proposed Dredging and Disposal Areas
4. Physical, Chemical, and Bioassay Sampling Locations
5. California State Lands Commission Dredging and Disposal Lease No. PRC 5202.9, approved June 27, 2000
6. North Coast Regional Water Quality Control Board Waste Discharge Requirements Order No. R1-2000-59 for Crescent City Harbor District Maintenance Dredging, adopted August 25, 2000

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable amount of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director of the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.